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## CURRENT INDUSTRIAL REPORTS



# Manufacturers' Shipments, Inventories, and Orders

September 1973

U. S. DEPARTMENT OF COMMERCE • Social and Economic Statistics Administration • BUREAU OF THE CENSUS

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## SUMMARY

New orders for manufactured products in September decreased \$1.19 billion, or 1.6 percent to \$74.92 billion from \$76.11 billion in August after seasonal adjustment. Shipments decreased \$190 million or 0.3 percent to \$72.83 billion. Unfilled orders increased \$2.09 billion or 1.9 percent to \$109.44 billion at the end of September. Manufacturers' inventories increased \$885 million or 0.8 percent to \$115.79 billion at the end of September. The inventories to shipments ratio increased from 1.57 to 1.59.

For the 3 months ending in September, the average month to month change in new orders declined 0.2 percent compared with a 1.2 percent increase for the 3 months ending in June and a 1.8 percent increase for the 3 months ending in March.

## NEW ORDERS

New orders for durable goods decreased \$585 million or 1.4 percent to \$42.11 billion in September. The decrease was primarily attributable to declines in primary metals (\$905 million) and shipbuilding and railroad equipment (\$200 million) which were partially offset by increases in other industries, notably nonelectrical machinery (\$190 million), motor vehicles and parts (\$130 million), and instruments and related products (\$100 million).

## SHIPMENTS

Shipments of durable goods increased \$350 million or 0.9 percent to \$39.98 billion. The September increase was led by the aerospace industry (\$240 million) and the motor vehicles and parts industry (\$160 million). Shipments of nondurable goods decreased \$540 million or 1.6 percent to \$32.85 billion. A decrease in the foods industry (\$510 million) led the decrease in nondurables.

## UNFILLED ORDERS

Unfilled orders of durable goods increased \$2.12 billion or 2.1 percent to \$104.75 billion at the end of September. This increase was concentrated in the nonelectrical machinery industries (\$660 million), fabricated metals industries (\$625 million) and electrical machinery industries (\$365 million).

## INVENTORIES

Inventories of durable goods and nondurable goods increased \$795 million and \$95 million respectively at the end of September. At the all manufacturing level, materials and supplies increased \$310 million, work in process increased \$320 million, and finished goods inventories increased \$255 million.

## SCHEDULED RELEASE DATES

The figures on the durable goods industries in this report supersede those issued earlier in the advance report on durable goods. The present report is based on more complete reporting, but the estimates are also considered preliminary. Final figures will appear as historical data in the report to be published for next month. The advance report on durable goods for October is scheduled for release on November 21, 1973 and the full report is scheduled for release on December 3, 1973.

For an explanation of terms used in this report see appendix following table 5.

Inquiries concerning these figures should be addressed to the U.S. Department of Commerce, Social and Economic Statistics Administration, Bureau of the Census, Industry Division, Washington, D.C. 20233.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Shipments						Total inventories					
	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment <sup>1</sup>		
	Sept. 1973 <sup>b</sup>	Aug. 1973 <sup>r</sup>	July 1973	Sept. 1973 <sup>b</sup>	Aug. 1973 <sup>r</sup>	Sept. 1972	Sept. 1973 <sup>b</sup>	Aug. 1973 <sup>r</sup>	July 1973	Sept. 1973 <sup>b</sup>	Aug. 1973 <sup>r</sup>	Sept. 1972
All manufacturing industries:												
Total.....	72,832	73,021	73,248	75,142	70,827	67,168	115,793	114,907	113,910	114,725	114,465	105,311
Total, excluding transportation.....	62,236	62,740	62,075	65,008	62,546	57,625	98,279	97,579	96,881	97,165	97,101	89,303
Durable goods industries, total.	39,984	39,633	40,779	40,862	37,291	36,579	76,006	75,213	74,278	75,461	75,117	68,529
Stone, clay, and glass products.	2,062	2,084	2,075	2,207	2,229	2,064	2,693	2,679	2,669	2,605	2,639	2,363
Primary metals, total.....	6,241	6,165	6,023	6,131	5,846	5,122	9,350	9,346	9,452	9,237	9,225	9,681
Blast furnaces, steel mills.....	3,140	3,030	2,924	2,977	2,882	2,449	4,786	4,820	4,869	4,719	4,724	5,366
Nonferrous metals.....	2,292	2,301	2,245	2,329	2,177	1,932	3,385	3,388	3,475	3,361	3,368	3,382
All other primary metals.....	809	834	854	825	787	741	1,179	1,138	1,108	1,157	1,133	933
Fabricated metal products total.....	4,369	4,385	4,606	4,681	4,455	4,261	8,510	8,378	8,238	8,498	8,508	7,612
Metal cans, barrels, and drums.....	454	472	452	514	545	471	700	713	719	691	740	709
Machinery, except electrical, total.....	6,181	6,117	6,240	6,401	5,734	5,398	15,889	15,681	15,504	15,672	15,538	13,782
Engines and turbines.....	576	487	500	626	445	488	1,374	1,388	1,361	1,345	1,367	1,198
Farm machinery and equipment.	603	583	568	641	530	547	1,304	1,309	1,314	1,259	1,288	1,176
Construction, mining, and material handling equipment.	1,214	1,244	1,243	1,260	1,204	930	3,096	3,044	2,992	3,031	3,007	2,547
Metalworking machinery.....	328	338	344	343	299	299	1,371	1,336	1,306	1,366	1,334	1,103
General industrial machinery	543	509	551	558	506	471	1,350	1,322	1,314	1,328	1,306	1,189
Electrical machinery, total..	5,287	5,350	5,405	5,649	5,230	5,021	11,828	11,742	11,514	11,777	11,772	10,114
Electrical transmission and distribution equipment and industrial apparatus.....	1,017	1,029	990	1,061	972	930	2,577	2,543	2,500	2,553	2,529	2,151
Household appliances.....	691	718	665	725	740	626	1,157	1,157	1,168	1,129	1,133	995
Radio and TV.....	501	500	603	625	540	561	1,037	1,062	1,052	1,046	1,122	939
Communication equipment.....	1,133	1,154	1,130	1,152	1,094	1,098	3,316	3,316	3,220	3,313	3,303	2,900
Transportation equipment, total	10,596	10,281	11,173	10,134	8,281	9,543	17,514	17,328	17,029	17,560	17,364	16,008
Motor vehicles and parts....	6,683	6,524	7,055	6,305	4,667	6,247	5,255	5,107	5,102	5,355	5,260	4,715
Aircraft, missiles, and parts.....	2,854	2,612	2,959	2,712	2,495	2,277	9,582	9,571	9,371	9,563	9,495	9,132
Shipbuilding and railroad equipment.....	399	381	414	407	370	343	1,838	1,833	1,770	1,843	1,814	1,467
Instruments and related products, total.....	1,204	1,163	1,196	1,313	1,168	1,242	3,054	2,978	2,879	3,028	2,995	2,657
Scientific and engineering..	599	572	620	635	566	605	1,671	1,635	1,601	1,656	1,637	1,545
All other instruments and related products.....	605	591	576	678	602	637	1,383	1,343	1,278	1,372	1,358	1,112
All other durable goods industries.....	4,044	4,088	4,061	4,346	4,348	3,928	7,168	7,081	6,993	7,084	7,076	6,312
Nondurable goods industries, total.....	32,848	33,388	32,469	34,280	33,536	30,589	39,787	39,694	39,632	39,264	39,348	36,782
Food and kindred products, total.....	11,318	11,827	11,222	11,952	11,750	10,375	10,004	10,011	10,135	9,922	9,816	9,385
Meat products.....	2,689	2,824	2,781	2,719	2,852	2,402	1,091	1,121	1,067	1,035	1,034	859
Fats and oils.....	946	932	889	947	938	659	640	665	802	536	598	589
Tobacco products.....	497	540	506	514	560	502	2,396	2,399	2,331	2,293	2,246	2,166
Textile mill products.....	2,486	2,550	2,550	2,618	2,602	2,438	4,439	4,379	4,349	4,352	4,371	3,897
Paper and allied products, total.....	2,724	2,767	2,722	2,801	2,798	2,456	3,063	3,032	3,006	3,019	3,029	2,830
Pulp, paper, etc.....	1,141	1,163	1,168	1,148	1,180	994	1,050	1,017	1,038	1,033	1,015	1,053
Paperboard containers.....	726	756	716	752	760	661	900	905	898	898	913	842
All other paper containers..	857	848	838	901	858	801	1,113	1,110	1,074	1,088	1,101	935
Chemicals and allied products, total.....	5,497	5,694	5,641	5,682	5,536	5,076	7,170	7,140	7,136	7,040	7,100	6,824
Industrial chemicals, except pigments.....	1,605	1,610	1,646	1,629	1,594	1,435	1,977	1,955	1,957	1,953	1,934	1,982
Drugs, soap, and toiletries.	1,503	1,574	1,502	1,691	1,647	1,622	2,399	2,364	2,365	2,366	2,392	2,066
Petroleum and coal products...	3,118	3,017	2,936	3,139	3,017	2,611	2,361	2,388	2,412	2,383	2,398	2,395
Rubber and plastics products, n.e.c.....	1,695	1,700	1,712	1,732	1,702	1,735	2,541	2,539	2,532	2,492	2,498	2,276
All other nondurable goods industries.....	5,513	5,293	5,180	5,842	5,571	5,396	7,813	7,806	7,731	7,763	7,890	7,009

See footnotes at end of table.

Table 1.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, BY INDUSTRY GROUP--Continued

(Millions of dollars)

Industry group	New orders						Unfilled orders					
	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment <sup>1</sup>		
	Sept. 1973 <sup>b</sup>	Aug. 1973 <sup>r</sup>	July 1973	Sept. 1973 <sup>b</sup>	Aug. 1973 <sup>r</sup>	Sept. 1972	Sept. 1973 <sup>b</sup>	Aug. 1973 <sup>r</sup>	July 1973	Sept. 1973 <sup>b</sup>	Aug. 1973 <sup>r</sup>	Sept. 1972
All manufacturing industries:												
Total.....	74,923	76,113	75,145	76,867	73,233	69,095	109,437	107,344	104,246	107,832	106,104	81,932
Total, excluding transportation.....	64,055	65,165	64,165	66,617	64,390	59,035	79,565	77,746	75,314	77,982	76,371	56,606
Durable goods industries, total.....	42,106	42,689	42,697	42,651	39,737	38,466	104,745	102,621	99,560	103,232	101,441	78,295
Primary metals, total.....	6,243	7,150	6,658	6,016	6,255	5,247	14,800	14,798	13,815	13,147	13,261	6,988
Blast furnaces, steel mills.....	3,038	3,912	3,493	2,868	3,205	2,574	10,438	10,540	9,658	8,945	9,054	4,259
Nonferrous metals.....	3,205	2,296	2,219	3,148	2,174	1,912	4,362	2,528	2,534	4,202	2,503	1,750
Fabricated metal products.....	4,996	4,903	5,008	5,351	4,968	4,497	13,833	13,206	12,686	13,879	13,210	10,623
Machinery, except electrical, total.....	6,837	6,647	6,902	6,902	6,321	5,595	19,776	19,118	18,587	19,567	19,068	13,535
Engines and turbines.....	602	527	681	645	512	580	5,226	5,200	5,159	5,203	5,185	4,015
Construction, mining, and material handling equipment.....	1,307	1,387	1,433	1,330	1,322	930	3,801	3,707	3,564	3,774	3,704	2,576
Metalworking machinery.....	354	412	408	388	382	332	1,797	1,770	1,696	1,827	1,783	944
General industrial machinery.....	752	508	634	720	549	542	2,126	1,917	1,918	2,075	1,913	1,336
Electrical machinery, total.....	5,653	5,701	5,676	6,185	5,649	5,672	18,975	18,610	18,256	19,315	18,777	15,497
Electrical transmission and distribution equipment and industrial apparatus.....	1,158	1,118	1,138	1,143	1,063	1,254	5,171	5,031	4,940	5,139	5,057	4,053
Household appliances.....	687	724	673	716	751	637	147	151	145	147	155	140
Radio and TV.....	533	466	661	683	502	651	685	652	686	749	691	743
Communication equipment.....	1,112	1,308	888	1,329	1,292	1,244	6,292	6,314	6,160	6,489	6,312	6,124
Transportation equipment, total.....	10,868	10,948	10,980	10,250	8,843	10,060	29,872	29,598	28,932	29,850	29,733	25,326
Aircraft, missiles, and parts.....	2,955	2,867	2,698	2,598	2,774	2,434	19,104	19,003	18,748	19,283	19,396	17,558
Shipbuilding and railroad equipment.....	338	540	504	418	386	635	6,401	6,462	6,304	6,288	6,278	5,021
All other durable goods industries.....	7,509	7,340	7,473	7,947	7,701	7,395	7,489	7,291	7,284	7,474	7,392	6,326
Nondurable goods industries, total.....	32,817	33,424	32,448	34,216	33,496	30,629	4,692	4,723	4,686	4,600	4,663	3,637
Industries with unfilled orders.....	8,265	8,370	8,242	8,540	8,395	7,829	4,692	4,723	4,686	4,600	4,663	3,637
Industries without unfilled orders.....	24,552	25,054	24,206	25,676	25,101	22,800	-	-	-	-	-	-

- Represents zero.

<sup>b</sup>Preliminary.<sup>r</sup>Revised.<sup>1</sup>Adjusted for trading-day and calendar-month variations.

Table 2.--VALUE OF MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS, FOR MARKET CATEGORIES AND SUPPLEMENTARY SERIES

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment <sup>1</sup>			Seasonally adjusted			Without seasonal adjustment		
	Sept. 1973 <sup>p</sup>	Aug. 1973 <sup>r</sup>	July 1973	Sept. 1973 <sup>p</sup>	Aug. 1973 <sup>r</sup>	Sept. 1972	Sept. 1973 <sup>p</sup>	Aug. 1973 <sup>r</sup>	July 1973	Sept. 1973 <sup>p</sup>	Aug. 1973 <sup>r</sup>	Sept. 1972
	Shipments						Total inventories					
All manufacturing industries, total...	72,832	73,021	73,248	75,142	70,827	67,168	115,793	114,907	113,910	114,725	114,465	105,311
Durable goods industries, total.....	39,984	39,633	40,779	40,862	37,291	36,579	76,006	75,213	74,278	75,461	75,117	68,529
Nondurable goods industries, total.....	32,848	33,388	32,469	34,280	33,536	30,589	39,787	39,694	39,632	39,264	39,348	36,782
Industry groups arranged by market categories:												
Home goods and apparel.....	6,670	6,616	6,541	7,313	7,213	6,675	12,921	12,842	12,707	12,735	12,895	11,398
Consumer staples.....	13,886	14,472	13,837	14,748	14,446	13,186	15,385	15,345	15,254	15,269	15,104	14,241
Equipment and defense products, except automotive.....	10,276	9,954	10,480	10,422	9,497	8,869	29,751	29,464	28,912	29,458	29,222	26,311
Automotive equipment.....	7,854	7,807	8,344	7,555	5,927	7,469	6,911	6,749	6,708	6,949	6,861	6,144
Construction materials, supplies, and intermediate products.....	5,970	5,928	6,098	6,399	6,277	5,777	9,738	9,590	9,446	9,593	9,573	8,530
Other materials and supplies and intermediate products.....	28,176	28,244	27,948	28,705	27,467	25,192	41,087	40,917	40,883	40,721	40,810	38,687
Supplementary series: <sup>2</sup>												
Household durable goods industries.....	2,995	3,084	3,095	3,325	3,270	3,001	6,056	5,998	5,936	5,985	6,048	5,338
Capital goods industries.....	11,914	11,687	12,138	12,134	11,113	10,472	33,615	33,351	32,740	33,376	33,118	29,654
Nondefense.....	10,300	10,135	10,465	10,470	9,553	8,878	28,087	27,796	27,306	27,863	27,608	24,806
Defense.....	1,614	1,552	1,673	1,664	1,560	1,594	5,528	5,555	5,434	5,513	5,510	4,848
	New orders						Unfilled orders					
All manufacturing industries, total...	74,923	76,113	75,145	76,867	73,233	69,095	109,437	107,344	104,246	107,832	106,104	81,932
Durable goods industries, total.....	42,106	42,689	42,697	42,651	39,737	38,466	104,745	102,621	99,560	103,232	101,441	78,295
Nondurable goods industries, total.....	32,817	33,424	32,448	34,216	33,496	30,629	4,692	4,723	4,686	4,600	4,663	3,637
Industry groups arranged by market categories:												
Home goods and apparel.....	6,752	6,491	6,642	7,377	7,087	6,762	2,836	2,761	2,877	2,965	2,901	2,560
Consumer staples.....	13,880	14,480	13,846	14,749	14,451	13,186						
Equipment and defense products, except automotive.....	10,960	10,939	10,753	10,951	10,326	9,826	53,089	52,173	50,932	52,965	52,218	42,527
Automotive equipment.....	8,086	8,060	8,322	7,774	6,194	7,537						
Construction materials, supplies, and intermediate products.....	6,506	6,417	6,406	6,998	6,682	6,015	12,811	12,274	11,785	12,871	12,271	10,004
Other materials and supplies and intermediate products.....	28,739	29,726	29,176	29,018	28,493	25,769	40,701	40,136	38,652	39,031	38,714	26,841
Supplementary series: <sup>2</sup>												
Household durable goods industries.....	3,041	2,996	3,154	3,361	3,202	3,100	2,247	2,201	2,288	2,388	2,352	2,099
Capital goods industries.....	12,732	12,887	12,603	12,796	12,231	11,737	58,791	57,974	56,773	58,744	58,083	48,214
Nondefense.....	11,103	11,032	11,404	11,118	10,548	9,778	38,005	37,202	36,303	37,937	37,289	28,532
Defense.....	1,629	1,855	1,199	1,678	1,683	1,959	20,786	20,772	20,470	20,807	20,794	19,682

\*During 1968 manufacturers in ordnance, communications, aircraft and aircraft parts, and shipbuilding industries began to provide aggregate figures on shipments, orders, and total inventories of work performed for the Department of Defense. The results of these reports are included in the defense series. <sup>p</sup>Preliminary. <sup>r</sup>Revised. <sup>1</sup>Shipments and new orders adjusted for trading-day and calendar-month variations; unfilled orders and inventories as of end of month. <sup>2</sup>The supplementary series are regroupings of the separate industry categories as follows:

Household durable goods industries - Household furniture; kitchen articles and pottery; cutlery, handtools, and hardware; household appliances; ophthalmic goods, watches, and clocks; and miscellaneous personal goods.

Capital goods industries - The capital goods industries series is comparable to the previous Producers' Capital Goods and the Defense Products (old series) categories.

Nondefense products - Machinery, except electrical (excluding farm machinery and equipment and machine shops), electrical machinery (excluding household appliances and electronic components), and the nondefense portions of shipbuilding and repairing and railroad equipment, communication equipment, aircraft and aircraft parts, and ordnance.

Defense products - Based on separate reports on defense work filed by large defense contractors in the following industries: ordnance, communications, aircraft and aircraft parts, and shipbuilding. The data are comparable to those published annually in the MA-175, Shipments of Defense-Oriented Industries, for the specified industries.

Table 3.--MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS MONTH-TO-MONTH AND LONG TERM PERCENT CHANGES

(Based on seasonally adjusted data)

Item and industry group	Month-to-month			Average monthly rates of change				Average, 1967-72	
	Aug.- Sept. 1973	July- Aug. 1973	June- July 1973	3 months			12 months	Average rise	Average decline
				June- Sept. 1973	Mar.- June 1973	Dec. 1972- Mar. 1973	Sept. 1972- Sept. 1973		
Shipments:									
All manufacturing industries.....	+0.3	-0.3	+2.3	+0.6	+0.9	+1.3	+1.0	+1.3	-1.2
Durable goods industries, total.....	+0.9	-2.8	+3.9	+0.7	+1.0	+1.3	+1.1	+1.9	-1.6
Nondurable goods industries, total.....	-1.6	+2.8	+0.3	+0.5	+0.7	+1.3	+1.0	+0.9	-0.7
Total inventories:									
All manufacturing industries.....	+0.8	+0.9	+0.8	+0.8	+0.9	+0.7	+0.7	+0.5	-0.1
New orders:									
All manufacturing industries.....	-1.6	+1.3	-0.3	-0.2	+1.2	+1.8	+1.0	+1.8	-1.5
Durable goods industries, total.....	-1.4	0.0	-0.7	-0.7	+1.6	+2.3	+1.0	+2.8	-2.4
Nondurable goods industries, total.....	-1.8	+3.0	+0.3	+0.5	+0.6	+1.3	+1.0	+1.0	-0.6
Unfilled orders:									
Durable goods industries, total.....	+2.1	+3.1	+2.0	+2.4	+3.5	+2.4	+2.4	+1.0	-1.1

Table 4.--VALUE OF MANUFACTURERS' INVENTORIES, BY STAGE OF FABRICATION, BY INDUSTRY GROUP

(Millions of dollars)

Industry group	Seasonally adjusted			Without seasonal adjustment			Seasonally adjusted			Without seasonal adjustment		
	Sept. 1973 <sup>p</sup>	Aug. 1973 <sup>r</sup>	July 1973	Sept. 1973 <sup>p</sup>	Aug. 1973 <sup>r</sup>	Sept. 1972	Sept. 1973 <sup>p</sup>	Aug. 1973 <sup>r</sup>	July 1973	Sept. 1973 <sup>p</sup>	Aug. 1973 <sup>r</sup>	Sept. 1972
	Total						Materials and supplies					
All manufacturing industries, total..	115,793	114,907	113,910	114,725	114,465	105,311	37,902	37,594	37,071	37,803	37,667	33,357
Durable goods industries, total.....	76,006	75,213	74,278	75,461	75,117	68,529	22,305	22,080	21,721	22,561	22,430	19,848
Stone, clay, and glass products.....	2,693	2,679	2,669	2,605	2,639	2,363	927	910	886	931	909	805
Primary metals.....	9,350	9,346	9,452	9,237	9,225	9,681	3,384	3,377	3,389	3,478	3,422	3,391
Machinery (electrical and nonelectrical)	27,717	27,423	27,018	27,449	27,310	23,896	7,740	7,602	7,411	7,676	7,642	6,200
Transportation equipment.....	17,514	17,328	17,029	17,560	17,364	16,008	3,395	3,407	3,413	3,482	3,474	3,216
All other durable goods industries.....	18,732	18,437	18,110	18,610	18,579	16,581	6,859	6,784	6,622	6,994	6,983	6,236
Nondurable goods industries, total.....	39,787	39,694	39,632	39,264	39,348	36,782	15,597	15,514	15,350	15,242	15,237	13,509
Chemicals and allied products.....	7,170	7,140	7,136	7,040	7,100	6,824	2,657	2,627	2,623	2,637	2,625	2,403
Petroleum and coal products.....	2,361	2,388	2,412	2,383	2,398	2,395	557	559	520	545	557	507
Rubber and plastics products, n.e.c.....	2,541	2,539	2,532	2,492	2,498	2,276	887	866	840	893	881	704
All other nondurable goods industries....	27,715	27,627	27,552	27,349	27,352	25,287	11,496	11,462	11,367	11,167	11,174	9,895
	Work in process						Finished goods					
All manufacturing industries, total..	41,033	40,711	40,121	40,902	40,617	36,784	36,858	36,602	36,718	36,020	36,181	35,170
Durable goods industries, total.....	34,749	34,461	33,944	34,633	34,353	30,931	18,952	18,672	18,613	18,267	18,334	17,750
Stone, clay, and glass products.....	375	371	355	361	366	316	1,391	1,398	1,428	1,313	1,364	1,242
Primary metals.....	3,493	3,477	3,514	3,417	3,406	3,451	2,473	2,492	2,549	2,342	2,397	2,839
Machinery (electrical and nonelectrical)	12,616	12,539	12,358	12,590	12,511	10,846	7,361	7,282	7,249	7,183	7,157	6,850
Transportation equipment.....	12,487	12,384	12,133	12,494	12,354	11,178	1,632	1,537	1,483	1,584	1,536	1,614
All other durable goods industries.....	5,778	5,690	5,584	5,771	5,716	5,140	6,095	5,963	5,904	5,845	5,880	5,205
Nondurable goods industries, total.....	6,284	6,250	6,177	6,269	6,264	5,853	17,906	17,930	18,105	17,753	17,847	17,420
Chemicals and allied products.....	1,139	1,136	1,117	1,123	1,126	1,020	3,374	3,377	3,396	3,280	3,349	3,401
Petroleum and coal products.....	520	529	533	525	525	517	1,284	1,300	1,359	1,313	1,316	1,371
Rubber and plastics products, n.e.c.....	405	404	399	405	404	373	1,249	1,269	1,293	1,194	1,213	1,199
All other nondurable goods industries....	4,220	4,181	4,128	4,216	4,209	3,943	11,999	11,984	12,057	11,966	11,969	11,449

<sup>p</sup>Preliminary.<sup>r</sup>Revised.

Table 5.--RATIO OF MANUFACTURERS' INVENTORIES TO SHIPMENTS AND UNFILLED ORDERS TO SHIPMENTS, BY INDUSTRY GROUP

(Based on seasonally adjusted data)

Industry group	Inventories - shipments ratio				Unfilled orders - shipments ratio <sup>1</sup> (months' backlog)			
	Sept. 1973 <sup>b</sup>	Aug. 1973 <sup>r</sup>	July 1973	Sept. 1972	Sept. 1973 <sup>b</sup>	Aug. 1973 <sup>r</sup>	July 1973	Sept. 1972
All manufacturing industries, total.....	1.59	1.57	1.56	1.65	2.55	2.51	2.41	2.18
Durable goods industries, total.....	1.90	1.90	1.82	1.95	3.03	2.98	2.84	2.60
Stone, clay, and glass products.....	1.31	1.29	1.29	1.27	(NA)	(NA)	(NA)	(NA)
Primary metals.....	1.50	1.52	1.57	1.88	2.37	2.40	2.29	1.50
Fabricated metals.....	1.95	1.91	1.79	1.91	3.53	3.37	3.05	2.97
Machinery, except electrical.....	2.57	2.56	2.48	2.68	3.20	3.13	2.98	2.62
Electrical machinery.....	2.24	2.19	2.13	2.16	3.59	3.48	3.38	3.24
Transportation equipment.....	1.65	1.69	1.52	1.68	5.10	5.09	4.70	4.93
Instruments and related products.....	2.54	2.56	2.41	2.35	(NA)	(NA)	(NA)	(NA)
Nondurable goods industries, total.....	1.21	1.19	1.22	1.27	0.57	0.57	0.57	0.49
Food and kindred products.....	0.82	0.85	0.90	0.96	(X)	(X)	(X)	(X)
Tobacco products.....	4.82	4.44	4.61	4.67	(X)	(X)	(X)	(X)
Textile mill products.....	1.79	1.72	1.71	1.72	(NA)	(NA)	(NA)	(NA)
Paper and allied products.....	1.12	1.10	1.10	1.20	(NA)	(NA)	(NA)	(NA)
Chemicals and allied products.....	1.30	1.25	1.27	1.43	(X)	(X)	(X)	(X)
Petroleum and coal products.....	0.76	0.79	0.82	0.92	(X)	(X)	(X)	(X)
Rubber and plastics products, n.e.c.....	1.50	1.49	1.48	1.37	(X)	(X)	(X)	(X)

(NA) Not available.    <sup>P</sup>Preliminary.    <sup>R</sup>Revised.    (X) Not applicable.<sup>1</sup>Excludes the following industries with no unfilled order: Wooden containers; glass containers; metal cans, barrels and drums; motor vehicle assembly operations; foods and related products; tobacco; apparel and related products; chemicals; petroleum and coal products; and rubber and plastics products, n.e.c.

# Appendix

The following is a description of the survey and definitions used. These are provided to clarify the meaning of the items involved and do not represent any revisions from those definitions previously employed.

## DESCRIPTION OF THE SURVEY

The Manufacturers' Shipments, Inventories, and Orders survey provides monthly figures that are comparable to the annual totals published each year in the annual survey of manufactures (ASM). The ASM is based on a sample of approximately 60,000 manufacturing establishments drawn from the 5-year census universe of about 310,000 establishments. In the ASM, each manufacturing establishment provides data on employment, payrolls, shipments, cost of materials, capital expenditures, and inventories as well as other selected items. The establishments do not provide information on unfilled orders or new orders. Since the ASM is establishment based, it provides data for each of the 425 manufacturing industries in the Standard Industrial Classification System (SIC) and area data for industry groups.

The monthly survey M3-1 does not provide information at the complete SIC industry detail because of the smaller size of the reporting panel and the fact that most companies cannot provide shipments, inventories, and orders data monthly for individual establishments.

The monthly reporting panel consists of approximately 5,000 reporting units and includes virtually all companies with 1,000 or more employees and a sample of the smaller ones. The reporting unit typically comprises the entire operations of a company although many of the larger diversified companies file separate divisional type reports for their operations in different industries.

Most of the reporting units include mixed industry activity even within the broad industry categories of the monthly survey. The survey methodology assumes that the month-to-month changes of the reporting units classified in each industry category represent effectively the month-to-month movements of the establishments in the SIC industries which make up the category. Thus, the monthly reports are used to update the ASM estimates by using a link relative of matched companies in each industry.

## EXPLANATION OF TERMS

**Value of Shipments**--Shipments in the monthly survey are equivalent to value of shipments as reported in the ASM which are received or receivable net selling values, f.o.b. plant, after discounts and allowances and excluding freight charges and excise taxes. Included in shipments are the value of all products sold, transferred to other plants of the same company, or shipped on consignment.

Shipments also include receipts of establishments in the industry for contract work performed for others, resales, receipts for miscellaneous activities such as the sale of scrap and refuse; value of installation and repair work performed by employees of the plant; and value of research and development performed at the plant. In the aircraft industry and shipbuilding, the value of work done in a given year varies considerably from the value of shipments because of the long lead time between the input of the materials and labor and the shipments of the completed aircraft or ship. In the annual survey, therefore, the value of work done during the year is requested rather than the value of shipments.

The value of shipments figures developed from the ASM contain duplication at the all manufacturing and industry group levels since the products of some industries are used as materials by other industries within the industry group. With the exception of motor vehicles, it is not significant at the 4-digit SIC group level. Since the M3-1 industry categories typically are groupings of industries, this duplication is significant for the all manufacturing, durable goods and nondurable goods categories and the various market groups. The significance of the duplication within the specific M3-1 industry groups varies depending on the 4-digit industry composition of these groups. It is most pronounced in a few highly integrated industry areas such as primary metals and motor vehicles and parts.

Since most monthly reports are for the entire company or major divisions rather than establishments, the companies are requested to report net sales, i.e., total company billings after discounts and allowances. Companies which file divisional reports are requested to treat transfers from one division of the company to another as if they were net sales to outside customers. Although this

definition of shipments in the monthly reports differs from that used in the annual establishment reports, it is assumed that the month-to-month changes in company sales in the industry are representative of the month-to-month shipments of the establishments in the industry.

**Inventories--**End-of-month inventories in the monthly survey are identical in definition to the end-of-year inventories in the ASM. In the ASM, respondents are asked to report inventories of individual establishments at approximate current cost if feasible; otherwise, "at book values." Since different methods of inventory valuation are used (LIFO, FIFO, etc.), the definition of the aggregate inventories for establishments in an industry is not precise. The figures on the change in inventories from one period to the next are of greater significance than the actual aggregates.

Inventories are reported by stage of fabrication: (a) finished goods; (b) work in process; and (c) materials, supplies, fuel, and other inventories. In using inventories by stage of fabrication at the all manufacturing and 2-digit industry levels as well as for the durable and non-durable goods sectors, it should be noted that a finished product of one industry may be a raw material for another industry at the next stage of fabrication. Insofar as the durable and nondurable goods sectors and also the 2-digit industry groups contain industries with successive stages of processing, the same type of commodity may be included under different inventory categories in the aggregate statistics.

#### **New Orders Received and Unfilled Orders--**

Orders as reported in the monthly survey are net of cancellations during the month. They include orders received during the period and also filled during the period as well as those orders received for future delivery. They also include the net sales value of contract change documents which increase or decrease the sales value of the unfilled orders to which they relate. Orders include only those supported by binding legal documents such as signed contracts, or letter contracts. In case of letter contracts the full amount of the sales value is included if the parties are in substantial agreement on the amount; otherwise, only the funds specifically authorized to be expended are included. The respondent is instructed to deduct the sales value of partial or complete cancellation of existing orders.

Unfilled orders include orders as defined above that have not yet passed through the sales account. Generally, unfilled orders at the end of the reporting period are equal to unfilled orders at the beginning of the period plus net new orders received less net sales.

While both new orders and unfilled orders are used in reviewing individual company reports for consistency, only unfilled orders are estimated directly in the tabulated totals. New orders are derived from the shipments plus net change in unfilled orders for each industry category. This procedure is followed for seasonally adjusted data as well as for the unadjusted data. Shipments and unfilled orders are seasonally adjusted independently. Seasonally adjusted new orders are derived from seasonally adjusted shipments and seasonally adjusted unfilled orders.